NavMed 369 RESTRICTED

NAVY DEPARTMENT

BUMED NEWS LETTER

a digest of timely information

Editor - Captain F. W. Farrar, (MC), U.S.N.

Vol. 8 Friday, July 5, 1946 No. 1

TABLE OF CONTENTS

* * * * * *

(Not Restricted)

Propylthiouracil for Hyperthyroidism: Propylthiouracil was selected for studies in the treatment of hyperthyroidism on the basis that it would possess a high degree of therapeutic effectiveness and at the same time not produce undesirable side effects.

Propylthiouracil has been used exclusively for more than a year, and a recent analysis of the first 100 cases treated at the Pratt Diagnostic Hospital has shown that the use of this derivative of thiouracil is not attended by undesirable side effects. Propylthiouracil is now being widely investigated in many clinics, and it is already apparent that this substance is superior to thiouracil and that the manifestations of toxicity frequently associated with the use of thiouracil no longer need be a consideration in the choice of therapy.

These advances in chemotherapy call for a revision of current practices, as they have made the treatment of thyrotoxicosis a simple and safe procedure that can be carried out by any practitioner of medicine. Only the most severe case requires hospital care; the majority of patients can continue their work while being treated. Iodine in any form must be avoided because prior iodine treatment may greatly delay the response to propylthiouracil therapy. Surgical procedures are considered to be unnecessary except in rare instances for cosmetic reasons.

When the diagnosis of hyperthyroidism has been made, propylthiouracil is given in a dose of 100 or 150 mg. daily. Patients with large nodular goiters, and those who have recently received iodine are given the larger dose, 50 mg. every 8 hours (e.g. 7 a.m., 3 p.m. and 11 p.m.); this dose is continued until all symptoms and signs of the disease have disappeared and the patient has regained health and normal weight. Patients with mild or moderately severe cases are given 50 mg. every 12 hours. This dose usually is sufficient; but in a few cases it may have to be increased to the larger dose if, after a month or so, progress seems to be unduly slow. Symptomatic improvement may be noted within a few days. Some individuals may require several months for the complete disappearance of all signs of the disease. When normal health has been regained, 75 mg. and later 50 mg. are given daily, and the minimal maintenance dose consistent with continued euthyroidism is given for a period of at least 6 months. The majority of patients remain well if treatment has effected a 6-month period of good health. A few patients experience a relapse after a single course of therapy and require a further period of treatment with the previously determined maintenance dose. There is no reason to believe that any harm results from long-continued therapy.

(Not Restricted)

If an excessive dosage is given for many weeks, symptoms and signs of hypothyroidism supervene, and if the dosage is not reduced, myxedema may result. The thyroid gland may quickly enlarge when hypothyroidism is induced; this is a useful sign of excessive dosage because otherwise during the course of treatment the gland slowly regresses. Should hypothyroidism be inadvertently induced, a reduced dose permits prompt recovery.

Exophthalmos may be the most prominent feature of Graves' disease; its cause is unknown and there are no specific measures for its treatment. The authors believe that the best treatment for the ophthalmopathy of Graves' disease is the proper control of the hyperthyroidism. In severe cases the eyes may be slow to improve, but recent experience shows that the best results follow the complete control, by means of propylthiouracil, of the associated thyrotoxicosis. (Bull. New England M. Center, June '46 - Astwood and Vanderlaan)

* * * * * *

(Not Restricted)

Treatment of Leukemia with Urethane Compared with Treatment by Deep X-ray Therapy: In 1943, following experimental work on the growth-inhibiting effects of urethane (ethylcarbamate) on animal tumors, it was decided to use the drug in advanced cases of malignant disease in man. In some of the patients treated a fall in the leucocyte count was noticed. This suggested the trial of urethane in patients with leukemia.

Because of intolerance to the drug, mainly shown by nausea and vomiting, it proved impossible to administer urethane by mouth in doses proportional, on a weight basis, to those given by injection in experimental animals. In most cases the drug was administered orally in the following form:

Urethane.....	1.0 gram
Syr. aurant. (spec.).....	1.5 c.c.
Aq. chlorof. to	15.0 c.c.

Dosages of urethane were determined by the tolerance of the patient and by the rate of drop of the white cell count. The amount of the drug necessary to produce a diminution in the white cell count to about 20,000 varied within wide limits (from 8 grams to 369 grams) and could not be correlated with body weight or the absolute diminution in the number of white cells.

The authors stated that 32 patients treated for leukemia had been observed over periods ranging from 5 weeks to 11 months.

Of 19 cases of myelogenous leukemia treated, 18 were chronic and one was acute. In 13 cases in which x-ray therapy was not used subsequently, the response

(Not Restricted)

to treatment was undoubted in that a dramatic fall in the total white cell count occurred. The hemoglobin values rose by an average of 16.6 per cent in 10 cases, remained stationary in one case, and fell in two cases. One patient manifested a late and dangerous drop in the cells of both the white and red series after heavy dosage of urethane over a long period of time, but recovered with transfusions and is reported as well six months later. One of these patients died with signs and symptoms of aplasia of the hematopoietic system, and it was believed that the drug was partly responsible. In 6 cases, x-ray therapy was used after a trial of urethane. In two of these, the response to the drug appeared inadequate; they responded well to x-rays. In one case, change to x-ray therapy was made because the nausea from urethane was severe. Two patients were treated with x-rays at the end of a remission following urethane. X-ray therapy was instituted and failed to produce any favorable response in a patient who was showing no favorable results from urethane.

Of 13 cases of lymphatic leukemia treated, 12 were chronic and one was acute. Urethane was used alone in 9 cases. Four patients received x-ray therapy after a trial of urethane, and of these, one was transferred to urethane treatment at a later stage with good response. Therapy was changed to x-ray in two patients because they did not respond to urethane. In one, urethane was discontinued because of nausea. On the whole, it may be said that the response in cases of lymphatic leukemia to urethane is less satisfactory and more variable than in those of myeloid leukemia.

In their summary the authors point out that the effects produced in the patients treated as represented in those showing the most favorable results by a fall in total white cell count to normal limits, a tendency for the differential count to approach a more normal pattern, diminution in the size of the spleen and enlarged lymph nodes, and a rise in hemoglobin level are remarkably similar to those obtained by standard methods with deep x-ray therapy.

There are no indications that permanent benefit may result from the use of urethane in either myeloid or lymphatic leukemia. The cases are too recent to enable any statement to be made about the effect of treatment on the length of life. It can, however, be said that the palliative effect in many cases is very great.

Urethane has also been administered in 13 cases of advanced carcinoma of the breast and in 11 cases of other types of malignant disease. A moderate leucopenia was observed in 9 of these. In 3 of the breast cases and 4 of the miscellaneous group there was a temporary diminution in the size of lesions. (The Lancet, May 11, '46 - Paterson et al.)

* * * * * *

(Not Restricted)

Famine Edema and the Mechanism of Its Formation: Edema associated with severe undernutrition was widespread in Europe during and shortly after World War I. No adequate explanation from infectious, cardiac, or renal causes was found. Speculation as to the mechanism of formation of this edema subsided with the demonstration that edema can be provoked in animals by a very low protein diet and with the accumulation of evidence for the general validity of Starling's concept of a filtration balance between hydrostatic and colloid osmotic pressures at the capillary wall. Despite some puzzling facts, by the eve of World War II there was almost universal agreement that "famine edema," as edema in kidney disease, is produced by a profound depression of the plasma colloid osmotic pressure, this in turn being a result of inadequate dietary protein.

In World War II, as expected, famine edema again appeared on a large scale. Contrary to expectation, however, the theory of simple hypoproteinemic causation was not fully sustained in such observations as were made, although there was reluctance to abandon this theory entirely. Data gathered by the Allied Armies indicated that hypoproteinemia was common in famine areas, but that it was generally slight in degree and was not closely related to the appearance or severity of edema.

In the authors' laboratory, data were obtained from a controlled experiment with 34 men (volunteers from civilian public service), who subsisted on a European type of famine diet for six months preceded by a control period of three months and followed by three months of controlled "relief" feeding.

While on the famine diet, these men lost an average of 24.5 per cent of their body weight, and pitting edema appeared within two months in some of the men and eventually in all but a few of the group; even the few apparent exceptions were shown by special means to be "waterlogged." The ratio of extracellular water to cellular tissue was roughly doubled. The clinical state of these men closely resembled that seen in Europe in 1945. There were no signs of renal or cardiac failure. The plasma protein concentration fell only slightly and the A/G ratio remained within normal limits. The venous pressure was roughly 50 per cent below normal. Data from the field lend support to these indications that famine edema is not simply a result of hypoproteinemia or of renal or cardiac failure. It is concluded that there is a dynamic nonequilibrium state of the capillary wall and, accordingly, calculations from equilibrium equations are inadmissible. (Science, May 31, '46 - Keys et al.)

* * * * * *

(Not Restricted)

Re the Therapeutic Use of Vitamin E: From the information thus far available, a satisfactory evaluation cannot now be made of the various results which

(Not Restricted)

have been reported from the use of Vitamin E in the wide variety of clinical conditions in which it has been employed.

Vitamin E has frequently been used in the form of wheat-germ oil which is a complex substance containing several chemical entities. Specific knowledge of the effects in humans of the different chemical entities, alone or in combination, is lacking. Wide variations in dosage have been employed by the several workers reporting success from the use of Vitamin E. Because of these facts, the possibility of influencing favorably the clinical course of several seemingly unrelated manifestations of disease through the use of Vitamin E in the form of wheat-germ oil must be conceded.

Able physicians who have had the opportunity to review the recent papers, all of which have not yet appeared in the medical literature, express the feeling that some of the studies have not been adequately controlled, and that the results from treatment have not been subjected to critical and exhaustive analysis. These doctors are, nevertheless, open-minded.

The belief exists that there are grounds to justify further study of the clinical use of Vitamin E, especially in certain types of involvement of the cardiovascular system.

* * * * * *

(Not Restricted)

Study of the Physiological Effects of Cold: In a study concerned with cold weather operations, continuous observations were made of the metabolic rate, and skin and rectal temperatures of men while dressed in Arctic uniforms and sitting quietly in extremely cold environments. Ambient temperatures ranged from +1.1 C. to -40.0° C.

The heat production in the cold was above basal values during the entire test period. In the -40°C. environment, average metabolic increases of 13, 53 and 74 per cent were recorded for the first, second and third hours respectively. The rise in heat output during the first hour could not be explained on the basis of shivering. In the third hour, shivering was present in the majority of the subjects. Neither the role of chemical mediators nor that of increased muscular tonus could be clearly delineated and require additional investigation.

The fall in rectal temperatures was moderate although values of 35.4°C. were occasionally observed. The absolute value was not correlated with the presence of shivering and, therefore, low rectal temperatures could not be considered as the stimulus for shivering.

(Not Restricted)

Mean skin temperatures fell precipitously during the first hour of exposure and were stabilized before the end of the test period. Considerable variability was observed in both the rate and extent of fall not only in different men, but in repeat tests on the same subject.

Of all the skin areas, the hands and feet exhibited the greatest temperature changes in both rate and degree of fall. Toe temperatures below 0°C. were noted in several instances. The susceptibility of the extremities to cold environments was related to their sensitive vasomotor mechanisms and to the fact that they were provided with the least amount of insulative protection.

The responses of men exposed to cold environments are subject to considerable variation, and extreme care must be exercised in the interpretation of data obtained, whether on a few or a large number of subjects. (Armored Med. Res. Lab., Fort Knox, Ky. - Partial Report Proj. No. 1, May 31, '46)

* * * * * *

(Not Restricted)

Estimation of Total Body Constituents by Isotopic Methods: Standard methods of measuring body fluid compartments have included measurements of plasma volume with blue dye and extracellular fluid with thiocyanate. In the last few years the measurement of the circulating red cell mass with red cells containing radioactive iron and of the extracellular fluid with radioactive sodium has also become practical. However, it has not been possible to measure intracellular water or to assess the magnitude of changes in these smaller fluid compartments with respect to changes in total body water.

The measurement of total body water by using deuterium oxide (heavy water) has been explored and appears to be a practical procedure. This has been done by estimating through the use of D_2O the total body water of rabbits and then subjecting the rabbits to drying. Through comparing the "D_2O space" with the total volume of body water, as determined by drying, it has been found that the deuterium oxide space is a measurement of total body water with an accuracy within 5 per cent of the animal's body weight. In a human patient the total body water thus measured amounted to 47,800 c.c. or 72.5 per cent of body weight.

In addition, radioactive isotopes may be used to determine the total quantity of certain ions present in the human body. If radioactive potassium is injected into an individual, equilibrium is reached with body potassium, as measured in the red cell, in about from 24 to 30 hours. The amount of activity found under equilibrium conditions may then be divided into the total amount of activity

(Not Restricted)

injected minus the quantity lost from the body through urinary excretion to determine the total amount of potassium in the body. In a human being weighing 66 kg. the total potassium found in the body by this method was 5030 mEq. or 76 mEq. per kg. of body weight.

By subtracting the radiosodium space from the deuterium space, an approximation of the amount of intracellular water may be obtained. By multiplying the amount of plasma potassium concentration by the radiosodium space, the amount of extracellular potassium may be calculated and subtracted from the total amount of potassium to give the intracellular potassium. Knowing the amount of intracellular potassium and intracellular water, one may then calculate the average concentration of intracellular-water potassium which, in the case described, was 162.7 mEq. per liter.

Similar measurements of total body sodium have been carried out and are theoretically possible also for other elements for which biologically suitable isotopes may be obtained. By these methods data can be obtained on living human subjects which were formerly available only by analysis of dead tissue. (OEMcmr-102, Francis D. Moore, Mass. Gen. Hosp., MS. for publication - CMR Bulletin #76)

* * * * * *

(Not Restricted)

Recent Smallpox Cases: A report of epidemiological studies on recent cases of smallpox among civilians and members of the armed services reveals that in none of the patients was it possible to obtain a clear-cut history of a recent satisfactory vaccination. In one patient with confluent smallpox, no scar from previous vaccination could be demonstrated, and the results in his case of two recent vaccinations against smallpox had been interpreted as "no take." From another patient, it was learned that he had been inadvertantly missed several weeks previously during the vaccination of all the other persons in the group with whom he worked.

Of significance also is the fact that in a very large civilian group, of the thousands who have thus far been vaccinated approximately one-third have shown a primary "take."

* * * * * *

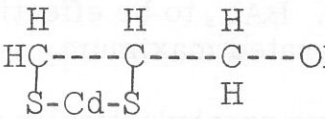
Study on BAL and Selenium in Cadmium Poisoning: Although cadmium poisoning is only sporadic following cadmium food contamination, it is most common and severe chiefly in industry after exposure to the substance as a dust or fume.

In this study, cadmium was administered to unanesthetized mice and dogs by inhalation, or occasionally by intravenous, subcutaneous, or intraperitoneal injection. Mostly, $CdCl_2$ was used for the inhalations, but oxide or sulphide dusts were sometimes used. Other compounds were employed parenterally.

It was found that following inhalation of $CdCl_2$ mists, dogs die early (within 48 hours or so) of pulmonary edema with symptoms mainly of anoxic anoxia, or late (in a week to a month) with pneumonia and bronchopneumonia, or fibrous pneumonitis, anorexia, bloody diarrhea, and wasting. Evidences of gastro-intestinal damage are common to all.

The action of cadmium ions on animal tissue was assumed to be analogous to that of other heavy metal ions which combine with tissue protein carboxyl or sulfhydryl groups to form insoluble metal proteinates or mercaptides and so impair enzyme and other cellular function. Dithiols had been demonstrated to be effective in preventing or reversing such combination in the case of arsenic and were a first choice in seeking a specific therapy for cadmium poisoning. BAL, (British anti-Lewisite - 2, 3-di mercapto propanol) was effective at once but with a lower margin of safety than for arsenic poisoning. Further extensive study, therefore, was made of dosages of other thiols, and nonthiols, and of chemical mechanisms. Cadmium inhibits some SH enzymes but spares others, and its action <u>in vitro</u> is reversed in varying degree by thiols. Actually, BAL proved to be the most satisfactory agent for treating Cd poisoning as it had earlier proved to be for As, and later for zinc and mercury poisoning.

Presumably cadmium is removed from vital tissue components by transformation into



, and this is excreted mainly through the kidneys.

Through the use of the radioactive isotope, Cd^{115}, and more or less standard tracer technic, it was determined that over half of the inhaled $CdCl_2$ passes beyond the lung by the end of a 30-minute exposure period. Cd continues to leave more and more slowly for about 2 days when half the initially retained amount has left.

BAL given after exposure to cadmium, despite the fact that it materially decreases lung damage, neither accelerates nor delays the loss of cadmium from the lung. Prophylactically administered BAL apparently does damage by holding a large amount of cadmium for slow release to lung tissue, while therapeutically administered BAL, reaching the lung after much of the cadmium has left, diverts cadmium already combined with lung tissue constituents

and then releases it slowly enough so that most of it is removed. The mechanism of the action of BAL on the cadmium in the lung and on the pathology caused by it deserves further study.

In the untreated animal, most of the Cd that passes from the lung and is not fixed elsewhere eventually leaves the body via the gastro-intestinal tract. Little is excreted through the kidneys. Treatment with BAL, however, definitely shifts excretion in the direction of the kidney. This is reflected in a changed pathological picture.

On the basis of a previously observed selenium-arsenic antagonism, the therapeutic effect of selenium dioxide was tested even though no Se-Cd antagonism was seen. The formation of a selenium analogue of cysteine was postulated. This compound, if formed, could combine with As or Cd and both metals be excreted as an As-Se-mercaptide. In Cd-poisoned mice, selenium did have a therapeutic effect and, unlike the thiols, could also be used prophylactically. One intraperitoneal injection of 3 mg. of Se (as SeO_2) per kg. before and after exposure, or an injection of 1.5 mg. per kg. on the first and second days after exposure saved about 40 per cent of mice which would otherwise have succumbed. The optimal dosage and route of administration were not determined.

The dithiol, BAL, in these studies on animals was effective in the treatment of cadmium poisoning, but was deleterious if given prophylactically for poisoning produced by inhalation. Injected promptly after exposure it can, in an optimal course of repeated injections, reduce mortality from 93 to 7 per cent. It greatly ameliorates the structural damage and markedly alters body distribution and route of excretion of cadmium. BAL, to be effective in mice and dogs, must be used in amounts near the tolerated maximum.

In animal studies, selenium is also effective prophylactically as well as therapeutically. Its use merits further exploration. (OEMcmr-114, Tobias et al., Univ. of Chicago, MS. for publication)

* * * * * *

Second Report on the Clinical Investigation of Streptomycin by the Committee on Chemotherapeutics and other Agents of the NRC: This report covers the main features of the Streptomycin Clinical Testing Program from 1 March 1946 to 31 May 1946 and is a continuation of report No. 1 which, for the most part, was contained in Bumed News Letter of 10 May 1946.

Progress Report on Chronic Toxicity Studies: The ten subjects mentioned in the previous report received each, daily through May, 3 grams of streptomycin

sulphate prepared from crystalline material (Pfizer lot #P4615). The streptomycin was administered by intramuscular injection every three hours of 0.375 grams dissolved in 2.0 c.c. of isotonic saline solution. The eleventh subject received streptomycin only as single injections for the detection of continued sensitivity. The observations covering this phase of the study are summarized as follows:

Did observe:

1. Suggestive evidences of impairment of renal function in one subject (casts in the urine of the remainder of the group only in occasional instances in which an acid urine was elaborated).

2. Marked diminution in vertigo which has persisted to a minimal degree in 7 of 9 subjects.

3. No new anaphylactic reactions but the appearance of eosinophilia (from 5 to 7 per cent) in 5 subjects who did not present other evidence of anaphylaxis.

Did not observe:

1. Deafness or other neurologic disorders.

2. Any serious reaction from the daily intrathecal administration of 0.1 Gm. streptomycin for a period of 28 days.

3. Evidences of impairment of hepatic function.

SUMMARY OF RESULTS OF TREATMENT

Table Covering Summary of Results

	No. of Cases	Recovered	Improved	No Effect	Died
1. Urinary Tract Infections	264	103	98	56	7
2. H. Influenzae Meningitis	71	52	10	3	6
3. Bacteremia	66	40	7	3	16

Table Covering Summary of Results (Cont.)

	No. of Cases	Recovered	Improved	No Effect	Died
4. Tularemia	51	44	5	2	-
5. Respiratory Infections	35	10	17	6	2
6. Brucellosis	32	-	20	12	-
7. Typhoid Fever	31	-	31	-	-
8. Salmonella infections	17	7	2	2	6
9. Peritonitis	34	25	2	1	6
10. Meningitis other than that due to H. influenzae	9	3	3	-	3
11. Miscellaneous	59	17	21	21	-

Urinary Tract Infections: There were 264 cases of urinary tract infections reported including E. coli, Proteus vulgaris, Ps. aeruginosa, A. aerogenes, Klebsiella pneumoniae (Friedlander's bacillus), enterococci, and those caused by other Gram-negative organisms as well as mixed infections with Gram-positive organisms. There were six cases of urinary tract infections with only Gram-positive organisms.

The results show that 103 patients recovered, 98 patients improved, and in 63 there was no demonstrable effect.

The intramuscular route of administration was used except for two patients treated by intravenous injection (without outstanding success). The daily dose varied from 0.25 Gm. per day to 4 Gm. per day with an average 1.5 Gm. per day. Treatment was continued for from 5 to 7 days in most cases; the average total dosage was from 7.5 to 10 grams. The majority of cases treated were chronic infections of from 2 months' to 20 years' duration.

The following points were clear:

1. This group of infections is complex, and it is extremely difficult in many instances to assess the relative merits of streptomycin and other factors in influencing recovery.

2. Infections due to a single organism respond more often than mixed infections.

3. The rapid development of resistance in vivo is common and accounts for the failure of streptomycin to sterilize the urine in many cases.

4. The adequate dosage would appear to be from 1 to 2 grams a day for from 6 to 8 days.

5. There seems to be little difference in the clinical response between infections caused by E. coli, Proteus vulgaris, A. aerogenes, and Ps. aeruginosa.

H. Influenzae Meningitis: There were 71 cases of H. influenzae meningitis. Of these, 52 were cured clinically and bacteriologically; 9 were cured bacteriologically; 1 improved but relapsed, and in 9 streptomycin failed. Of the 52 patients who were cured clinically and bacteriologically, 12 received streptomycin alone while the remaining 40 cases were given either previous or concurrent treatment with penicillin, sulfonamides, and serum in various combinations.

The average daily dose was 0.5 grams intramuscularly and 0.05 grams intrathecally for 8 and 7 days respectively. The patients who failed to respond received the same daily amounts but were treated for a shorter period of time.

Bacteremia was present in 23 of the recovered cases and in one of the failures.

Two of the patients who showed only bacteriological cures were treated by the intramuscular route alone; all others were treated both intramuscularly and intrathecally. Two patients were treated by the intrathecal route alone; one recovered and one showed a bacteriologic cure.

Bacteremia: This was a complex group and it can be seen from the table that the recovery rate in the Gram-negative bacillary bacteremia cases was favorable. The ultimate outcome in patients with E. coli bacteremia was determined in part by the nature of the primary lesion.

	No. of Cases	Recovery or Improvement	Death	No Effect
GRAM-NEGATIVE				
E. coli	27	21	5	1
Proteus vulgaris (B. proteus)	4	4	-	-

(Table continued next page)

	No. of Cases	Recovery or Improvement	Death	No Effect
GRAM-NEGATIVE				
Ps. aeruginosa (Bacillus pyocyaneous)	9	6	3	-
A. aerogenes	3	3	-	-
Klebsiella pneumoniae (Friedlander's bacillus)	1	1	-	-
Enterococcus	1	1	-	-
H. influenzae	2	2	-	-
Gram neg. bac.?	2	1	1	-
GRAM-POSITIVE				
Staphylococcus	5	2	2	1
Streptococcus	5	3	2	-
Streptococcus fecalis	2	1	1	-
Gram positive ?	1	1	-	-
MIXED				
E. coli & Streptococcus fecalis	1	-	1	-
E. coli & Aerobacter aerogenes	1	-	-	1
Ps. aeruginosa & Aerobacter aerogenes	1	1	-	-
E. coli, Ps. aeruginosa, & Aerobacter aerogenes	1	-	1	-
TOTALS	66	47	16	3

Tularemia: Fifty-one cases have been reported with 49 recoveries. The results were striking in 44 and improvement was more gradual in 5. In 2 cases, it was reported that no effect was observed. In both of these cases the diagnosis was questionable; the total dosage was less than 3 grams, and in both treatment was carried on for over 8 weeks after the onset of symptoms. In 1 case a relapse was observed which responded to a second course of treatment. The average duration of treatment was from 5 to 10 days, and the total amount of streptomycin used varied from 4.5 to 10 grams. In general, it can be said that the favorable results were obtained with 0.75 grams a day for 6 days.

Nine of the patients had pleural and pulmonary forms of tularemia. All recovered.

Respiratory Infections: Thirty-five cases of acute and chronic pulmonary infections due to a variety of Gram-negative organisms have been treated. Recovery occurred in 10, improvement in 17, and no effect in 18. Five of the patients who improved had only temporary results since 2 of them relapsed and 3 of them died.

Fourteen cases were infections with Klebsiella pneumoniae (Friedlander's bacillus). Recovery resulted in 4, permanent improvement in 3, temporary improvement in 3, and no effect in 4. Two cases were infections with H. influenzae in which 1 patient recovered and 1 improved temporarily and then died. Two cases were staphylococcal infections with improvement resulting in 1 patient and no effect in the other. The only other pure Gram-positive infection was a streptococcal pneumonia in which recovery occurred. The remainder of the cases were mixed infections (Gram-negative, or Gram-negative and Gram-positive organisms).

Treatment in the cases that recovered averaged 1.5 grams per day for 10 days. The other patients received about the same treatment except for one who improved and relapsed. This patient was given only 0.16 grams per day for 7 days.

Twenty per cent of the patients who recovered had been ill for more than 1 month before the start of treatment while 50 per cent of the improved ones and 62 per cent of the "no effect" ones had had their disease for more than 1 month before start of treatment.

Previous treatment with sulfa and penicillin was about equally divided between the patients who recovered and those who showed no effect. None of the patients who recovered received any other chemotherapy during the period of streptomycin treatment.

The intramuscular route of administration was used in the majority; however, in 3 patients (2 improved and 1 died) the aerosol method was used. It was not used alone, however, as the drug was also given intramuscularly in 2 cases and intravenously in the third case.

Brucellosis: Of the 32 patients, 20 improved while under treatment and 12 showed no effect on the course of the disease. The majority of patients who improved under therapy received between 3.5 and 4.0 grams a day for from 5 to 14 days. Only 3 patients improved when less than 3.5 grams were given a day; only one of the patients who showed no improvement received more than 3.5 grams per day.

From the study of these cases it can be said that no dramatic effects were observed following the use of streptomycin. The minimum dose should be 4.0 grams a day for from 14 to 21 days.

It is suggested that a group of patients be treated for from 14 to 28 days with maximally tolerated doses to determine whether or not the relapse rate can be reduced and the total duration of the disease shortened.

Typhoid Fever: There were 31 patients studied. Thirteen were started on treatment before the 18th day of illness, and 9 of the 13 had a normal temperature before the 28th day of illness. One other patient had a normal temperature on the 24th day of illness but had a relapse 11 days later which lasted for 16 days. In the other 3, the temperature reached normal after the 32nd day of illness.

In the remaining 18 patients, treatment was started after the 18th day of illness and in no case was the temperature normal before the 30th day of illness.

The dosage varied from 1 to 5 grams a day for from 5 to 19 days.

An insufficient number of patients has been treated to determine whether the fatality rate can be reduced. Also, it will be important in the future to determine whether early treatment - i.e., starting treatment within the first 7 days of the illness - will shorten the duration of the disease.

Salmonella Infections: In all, 17 cases were studied. Seven patients recovered while under treatment, 2 showed improvement, and in 8 there was no demonstrable improvement. The average dosage of streptomycin was 2.75 grams for a period of 7 days. Bacteremia was present in 12 of the 17 cases. There have been too few cases to draw any definite conclusions. It is recommended that more of these patients be treated early in the course of the disease with larger doses and for longer periods of time.

Peritonitis: There were 34 patients with peritonitis; six of them died. While it is difficult to say how much of a role streptomycin played in the recovery, there was only 1 death in 16 patients with peritonitis following appendicitis and the overall recovery rate was 80 per cent.

Meningitis (other than those due to H. Influenzae): There were 9 cases with 3 deaths. The deaths occurred in patients with infections caused by a pneumococcus, a staphylococcus, and an unidentified Gram-negative organism. The other 6 cases were due to E. coli, Proteus vulgaris and Alcaligenes fecalis. It would appear from these cases that streptomycin will aid greatly in the recovery rate in this group of cases.

Miscellaneous Cases: This group of 59 cases has been divided up as follows:

Diagnosis	No. of Cases	Improved	No Effect
1. Cholangitis and/or Cholecystitis	5	5	0
2. Draining fistulae	5	3	2
3. Infections of Skin and Subcutaneous Tissues	16	10	6
4. Intra-abdominal Abscesses	4	4	0
5. Liver Abscesses	2	2	0
6. Osteomyelitis	7	6	1
7. Otitis Media	4	3	1
8. Reiter's Syndrome	1	0	1
9. Rheumatoid Arthritis	6	0	6
10. Typhus Fever	2	0	2
11. Ulcerative Colitis	7	0	7

The treatment in these cases was usually in the range of from 1 to 2 grams a day for from 6 to 10 days. (In a few cases the drug was given topically, but in the majority it was administered by the usual intramuscular route.)

The heterogeneous nature of this group and the small number of cases under each diagnosis make it impossible to arrive at any significant conclusions as to the efficacy of streptomycin in the treatment of these conditions.

Side Effects: The incidence of side reactions was approximately 18 per cent. The commonest reactions were headache, fever, flushing of the skin, skin eruptions, vertigo, and pain at the site of injection. These occurred in various combinations.

An attempt was made to correlate the reactions with the different lot numbers distributed by the various manufacturers. The commonest reactions suggested a histamine-like reaction; however, there was no correlation between the number of reactions and the histamine assay. It was apparent, however, that 50 per cent of the reactions occurred with four lots of material from one manufacturer. However, the significance of this cannot be assessed until the total number of cases treated with these lot numbers is related to the total number treated with other lots of streptomycin. Reference to these 4 lots disclosed no differences in the assays for the various lots.

It should be pointed out that all of these reactions were more or less transitory in character.

Note: As mentioned in a note following the previous report printed in the Bumed News Letter of 10 May 1946, this outstanding service to the medical profession and to society as a whole is made possible by the efforts and cooperation of the Civilian Production Administration, the National Research Council Committee, headed by Dr. Chester S. Keefer, and the Streptomycin Producers who contributed a large sum of money to finance the study.

Information on the setup of this program is contained in the Bumed News Letter of 15 March 1946, page 19.

* * * * * *

(Not Restricted)

Use of Nupercaine as Anesthetic Discontinued: Because of failure in several instances to carry out fully the provisions of Alnav 28 of 2 February 1945, the attention of all concerned is again called to the content of this Alnav which directed (1) that the use of Nupercaine as an anesthetic be discontinued immediately, (2) that all Nupercaine (Supply Catalog item S1-3320) on hand be turned into the nearest naval medical supply depot or storehouse, and (3) that medical supply facilities discontinue issue. (Professional Div., BuMed)

* * * * * *

(Not Restricted)

Organization of Top Management of the Bureau of Medicine and Surgery: Certain directives issued 11 June 1946 effected changes in the organizational setup of the Bureau of Medicine and Surgery. Copies of these directives follow:

Department of the Navy
Bureau of Medicine and Surgery

7 June 1946

To: Chiefs of Divisions, BuMed.

Subj: Top Management of the Bureau of Medicine and Surgery; Organization of.

1. Top management of the Bureau of Medicine and Surgery shall be as outlined herein, effective immediately.

2. The top management of the Bureau shall consist of the Surgeon General (Chief of Bureau) and the following officers who shall report directly to him and assist him in the performance of his top management functions:

(a) Deputy and Assistant Chief of Bureau
(b) Assistant Chief for Professional and Personnel Operations
(c) Assistant Chief for Planning and Logistics
(d) Assistant Chief for Aviation Medicine and Medical Military Specialties
(e) Assistant Chief for Dentistry

3. The mission of the top management of the Bureau is to control, direct, plan and supervise the policies and programs of the Bureau and through it the activities of the Medical Department ashore and afloat. To this end the top management of the Bureau shall: (a) maintain an effective business organization, including financial planning and budgetary control, administrative analysis and control, medical statistics, and public information; (b) coordinate and correlate the planning, materiel, and Army-Navy medical procurement activities of the Bureau and Medical Department to provide effective logistics administration and control; (c) coordinate and correlate the professional, preventive medicine, personnel, physical qualifications, medical records, and professional publications operations of the Bureau and Medical Department to provide professional performance in all the avenues of responsibility of the Medical Department in keeping with its high standards; (d) coordinate and correlate all phases of the aviation, submarine, amphibious, and Marine Corps field medicine program and other medical military specialties to provide for all medical needs of Naval air and other specialized activities; (e) coordinate and correlate all phases of the dental

(Not Restricted)

program to provide dental services required by all branches of the Navy; (f) conduct research activities based upon the requirements of the Naval medical service.

4. The Surgeon General (Chief of Bureau) is responsible for the supervision and direction of all of the work of the Bureau of Medicine and Surgery in accordance with orders and directives of the Secretary of the Navy, the Civilian Executive Assistants and the Chief of Naval Operations, as provided in paragraphs 6, 7 and 8 of General Order No. 230. To this end he is assisted by, and has directly attached to his office, the Deputy and Assistant Chief of Bureau and the four Assistant Chiefs.

5. The Deputy and Assistant Chief of Bureau and the four Assistant Chiefs are projections of the Surgeon General and Chief of Bureau; as such they are not operational officers as are division chiefs and office heads, but are policy coordinators of operating divisions.

6. The Deputy and Assistant Chief of Bureau, the duties of which office shall be vested in one person, who by virtue of that fact shall rank next to the Surgeon General in authority in BuMed and the Medical Department, shall be responsible to the Surgeon General (Chief of Bureau) for the projection of his policy control throughout the Bureau and shall act with full responsibility and authority for him in his absence. In addition, he shall have direct responsibility for policy control in operating divisions and offices as assigned, to wit: Office of Information, Administration Division, Finance Division, Medical Statistics Division. To this end he shall be responsible for functions prescribed in item (a), paragraph 3 of this directive.

7. The Assistant Chief for Planning and Logistics shall be responsible to the Surgeon General (Chief of Bureau) for projection of BuMed policy control in operating divisions and offices as assigned, to wit: Planning Division, Materiel Division, Medical Materiel Board, and Army-Navy Medical Procurement Agency. To this end he shall be responsible for the functions prescribed in item (b), paragraph 3 of this directive.

8. The Assistant Chief for Professional and Personnel Operations shall be responsible to the Surgeon General (Chief of Bureau) for projection of BuMed policy control in operating divisions and offices as assigned, to wit: Professional Division, Personnel Division, Physical Qualifications and Medical Records Division, Preventive Medicine Division, and Publications Division. To this end he shall be responsible for the functions prescribed in item (c), paragraph 3 of this directive.

9. The Assistant Chief for Aviation Medicine and Medical Military Specialties

(Not Restricted)

shall be responsible to the Surgeon General (Chief of Bureau) for projection of BuMed policy control in the operating divisions as assigned, to wit: Aviation Medicine Division, Submarine Medicine Division, and Amphibious and Marine Corps Field Medicine Division. The Assistant Chief for Aviation Medicine and Medical Military Specialties shall, until further orders, assume within his office the functions of the operating division chief of these Divisions. To this end he shall be responsible for the functions prescribed in item (d), paragraph 3 of this directive.

10. The Assistant Chief for Dentistry shall be responsible to the Surgeon General (Chief of Bureau) for projection of BuMed policy control in the division as assigned, to wit: Dentistry Division. The Assistant Chief for Dentistry shall, until further orders, assume within his office the functions of the operating division chief of the Dentistry Division. To this end he shall be responsible for the functions prescribed in item (e), paragraph 3.

11. The Chief of Research Division, until further assignment, shall be responsible to the Surgeon General (Chief of Bureau) for the functions prescribed in item (f), paragraph 3 of this directive, without policy control from any Assistant Chief.

12. In additional to the above prescribed organization of the top management of the Bureau, but not assigned for policy control directly to any of the assistant chiefs, there shall be:

a. A General Inspector of the Medical Department who shall report directly to the Surgeon General (Chief of Bureau) and shall review and direct such inspections of Naval medical activities as shall be determined from time to time.
b. Designated Special and Civilian Assistants to the Surgeon General, who shall report directly to the Surgeon General and Chief of Bureau in the performance of special assignments and functions as prescribed.

13. Operational memoranda will be directed to the top management officers from time to time designating specific assignments of duties such as policy planning, exploration of programs, program planning, mail signature, etc.

14. Nothing in this directive shall be construed as refusing direct access of operating division chiefs to the Surgeon General and Chief of Bureau, or Deputy and Assistant Chief of Bureau, when such access is indicated by administrative expediency. However, all such conferences shall be fully reported to, or conducted in the presence of, the appropriate top management officer as outlined above.

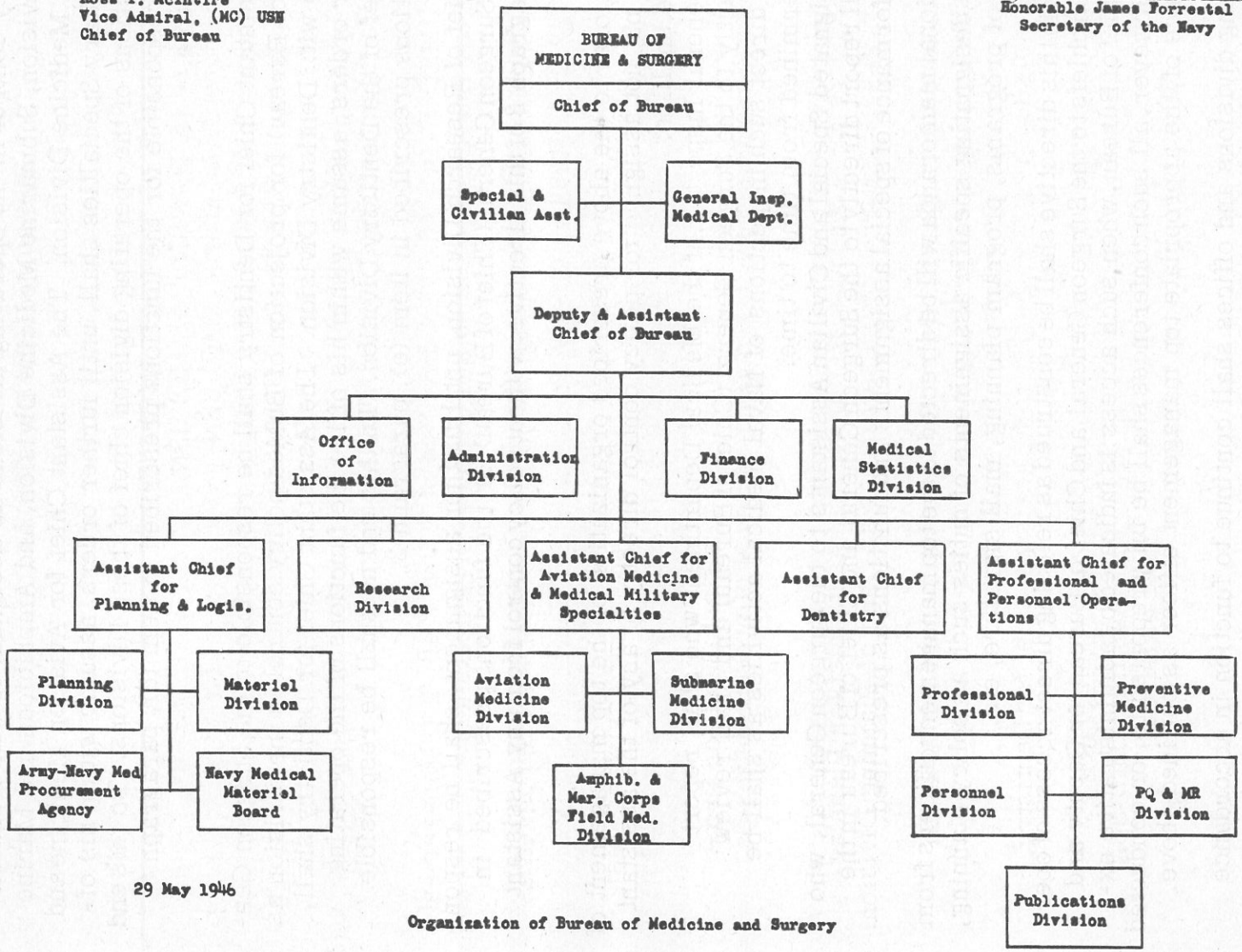
15. Operating divisions and offices shall continue to function in accordance with existing functional directives.

Approved: JAMES FORRESTAL
Secretary of the Navy

/s/ ROSS T McINTIRE
Vice Admiral, (MC) USN
Chief of Bureau

Approved: Ross T. McIntire
Ross T. McIntire
Vice Admiral, (MC) USN
Chief of Bureau

Approved: James Forrestal
Honorable James Forrestal
Secretary of the Navy



29 May 1946

Organization of Bureau of Medicine and Surgery

(Not Restricted)

Department of the Navy
Bureau of Medicine and Surgery

11 June 1946

To: Rear Admiral W. J. C. Agnew, (MC) USN
Commodore M. D. Willcutts, (MC) USN
Commodore C. L. Andrus, (MC) USN
Commodore J. C. Adams, (MC) USN
Rear Admiral A. G. Lyle, (DC) USN
Chiefs of Divisions and Offices, BuMed.

Subj: Top Management Officers of BuMed, Appointment of.

Ref: (a) BUMED-E-DG, A3-4/EN directive of 7 June 1946, Top Management of the Bureau of Medicine and Surgery, Organization of.

1. In order to effectuate reference (a) the following officers are appointed as Assistant Chiefs of Bureau:

(a) Rear Admiral W. J. C. Agnew, (MC) USN, Deputy and Assistant Chief of Bureau.

(b) Commodore M. D. Willcutts, (MC) USN, Assistant Chief for Professional and Personnel Operations, relieved of present duties as Chief, Personnel Division.

(c) Commodore C. L. Andrus, (MC) USN, Assistant Chief for Planning and Logistics, relieved of present duties as Chief of Planning Division.

(d) Commodore J. C. Adams, (MC) USN, Assistant Chief for Aviation Medicine and Medical Military Specialties.

(e) Rear Admiral A. G. Lyle, (DC) USN, Assistant Chief for Dentistry.

/s/ ROSS T McINTIRE
Vice Admiral, (MC) USN
Chief of Bureau

* *

(Not Restricted)

Department of the Navy
Bureau of Medicine and Surgery

13 June 1946

To: Assistant Chiefs of Bureau, Chiefs of Divisions, BuMed.

Subj: General Inspector, Medical Department, Establishment of.

Ref: (a) BUMED-E-LG, A3-4/EN, 24 Aug 1945.
(b) General Order No. 228 of 20 Dec 1945, Office of Naval Inspector General and General Inspectors in the Naval Establishment.
(c) BUMED-E-LG, A3-4/EN of 7 June 1946, Top Management of the Bureau of Medicine and Surgery; Organization of.

1. Reference (a) is hereby canceled and superseded. In accordance with reference (c), the office of General Inspector, Medical Department is established.

2. The office of General Inspector, Medical Department, shall perform the following functions: (a) review, appraise, and make recommendations on all inspection reports of Medical Department activities of the Navy, including the Marine Corps; (b) effectuate through the appropriate division or office of the Bureau such recommendations as are approved by the Surgeon General; (c) conduct such inspections and investigations of the Medical Department as the Surgeon General may direct; (d) prepare reports of special inspections and investigations; (e) maintain liaison with the Office of the Naval Inspector General and all divisions and offices of the Bureau.

3. Rear Admiral John Harper, (MC) USN has been designated as Head of subject office.

/s/ ROSS T. McINTIRE
Vice Admiral, (MC) USN
Chief of Bureau

* *

(Not Restricted)

Department of the Navy
Bureau of Medicine and Surgery

11 June 1946

MEMORANDUM

To: Assistant Chiefs of Bureau.

Subj: Signing of Mail.

(Not Restricted)

Refs: (a) BUMED-E-BHL, A6-6/EN10(032) of 3 May 1945, subj: Signing of mail "By direction."
(b) BUMED-E-DG, A3-1/EN ltr of 7 June 1946, Top Management of the Bureau of Medicine and Surgery; Organization of.

1. In accordance with reference (a), addressees are authorized to sign or cause to be signed by Division Chiefs all correspondence of a routine nature or of a policy interpreting nature coming within their cognizance unless administrative expediency would indicate otherwise.

2. Addressees shall furnish the Chief of Bureau, for his approval, at earliest convenience a list of specific subjects which addressees may sign "by direction" in regard to their functional areas assigned to them by reference (b).

/s/ ROSS T McINTIRE
Vice Admiral, (MC) USN
Chief of Bureau

* *

(Not Restricted)

Department of the Navy
Bureau of Medicine and Surgery

11 June 1946

To: Chiefs of Divisions, Boards and Offices, BuMed.

Subj: Office of Information; Establishment of.

Refs: (a) BUMED-E-LG, A3-4/EN(073-40) of 18 July 1944, subj: Functional Reorganization of Publications Division.
(b) BUMED-E-DG, A3-4/EN directive of 7 June 1946, subj: Top Management of the Bureau of Medicine and Surgery; Organization of.

1. In accordance with reference (b), an Office of Information is hereby established in the Bureau of Medicine and Surgery under the policy control of the Deputy and Assistant Chief of Bureau.

2. The Office of Information shall (a) prepare and relate information on Medical Department activities; (b) maintain liaison with EXOS Office of Public Relations; (c) acquire and maintain a file of photographs depicting Medical Department activities.

3. The Office of Information shall consist of two sections, (a) an Information Service Section, and (b) a Photographic Files Section.

4. The Information Service Section shall answer all requests for general information regarding the work of the Medical Department, prepare and release special material necessary to provide the public with information concerning

(Not Restricted)

Medical Department activities, render staff assistance in the preparation of speeches and articles, and maintain liaison with EXOS, Office of Public Relations.

5. The Photographic Files Section shall acquire and maintain a stock of current photographs depicting Medical Department activities and personnel, for use and information of other sections and divisions.

6. Reference (a) is hereby amended accordingly.

/s/ ROSS T McINTIRE
Vice Admiral, (MC) USN
Chief of Bureau

* * * * * *

(Not Restricted)

Opportunity for Full-Time Active Duty for Reserve Medical and Dental Officers: The attention of Reserve medical and dental officers is invited to the opportunity to perform full-time active duty at one of the 15 major naval air stations of the Naval Air Reserve Training Command listed below:

NAS Dallas, Tex.
NAS New York, N.Y.
NAS Minneapolis, Minn.
NAS Grosse Ile, Ill.
NAS Atlanta, Ga.
NAS Glenview, Ill.
NAS Columbus, Ohio
NAS Olathe, Kan.
NAS Memphis, Tenn.
NAS St. Louis, Mo.
NAS Livermore, Cal.
NAS Los Alamitos, Cal.
NAS Willow Grove, Pa.
NAS Squantum, Mass.
NAS New Orleans, La.

Additional Reserve medical officers are needed as Flight Surgeons for the various units which comprise the Organized and Volunteer Reserve components of the Inactive Reserve.

Reserve officers of the Medical and Dental Corps who are interested in either full-time active duty as members of the station-keeper staffs at one of the 15 major naval air stations listed above, or who are interested in affiliating themselves with the Reserve units participating in part-time active duty, should initiate letters to the Bureau of Naval Personnel, via the Chief of Naval Air Reserve Training with Headquarters at Naval Air Station, Glenview, Ill., and via BuMed, listing the stations (in the order of preference) at which duty is desired. Personnel are desired in the ranks of Commander and Lieutenant Commander in the Medical Corps, and of the rank of Lieutenant in the Dental Corps for full-time active duty as station keeper. Quotas are not restricted to these ranks, however, and interested officers of any rank may apply.

(Not Restricted)

Postgraduate Courses for Dental Officers: The following postgraduate courses for dental officers are scheduled to begin 2 September 1946 at the Naval Dental School, National Naval Medical Center, Bethesda, Maryland.

1. Basic Indoctrinational Course: This course is designed for newly commissioned officers and is not as comprehensive professionally as the General Postgraduate Course. It gives special emphasis to Naval Customs, Navy Regulations, Naval Courts and Boards, and the Manual of the Medical Department.

2. General Postgraduate Course. This course is designed to acquaint experienced officers with recent advances and newly developed specialized procedures. It includes oral diagnosis and roentgenology, operative dentistry, periodontia, oral bacteriology, endodontia, biochemistry, crown and bridge prothesis, partial and full denture prothesis, exodontia, dental property and accounting, and dental administration.

3. Specialized Postgraduate Courses.

a. Oral Surgery
b. Prosthodontia
c. Maxillo-Facial and Ocular Prothesis
d. Periodontia and Oral Pathology
e. Operative Dentistry

All courses are of six months' duration.

Newly commissioned dental officers will be ordered to the Basic Indoctrinational Course in such numbers as circumstances permit.

Candidates for the General Postgraduate and Specialized Postgraduate Courses will be selected from dental officers who have submitted a request for postgraduate instruction in accordance with paragraph 1361, Manual of the Medical Department, 1945. (Dentistry Div., BuMed)

* * * * * * *

(Not Restricted)

Course in Aviation Medicine: The attention of regular medical officers and Reserve transferees is invited to Alnav 320 (p.31 of this issue) concerning applications desired for a course in Aviation Medicine.

* * * * * * *

(Not Restricted)

Transfer to Regular Navy: The attention of temporary and Reserve naval officers is invited to Alnav 318 (p.30 of this issue) containing new information concerning transfer to the Regular Navy.

To: All Ships and Stations. 10 May 1946 (Not Restricted)

Subj: Compressed Air for Use in Dental Operating Rooms and Prosthetic Laboratories.

Ref.: (a) General Specifications, subsec. U-18-a, lines 13 and 14, and subsec. W-6-k, line 3.

1. In accordance with subsection U-18-a of the General Specifications, separate air compressors have been provided for dental offices and these have been furnished by the Bureau of Medicine and Surgery. These compressors have been standard commercial equipment purchased from medical supply sources and they caused considerable difficulty due to malfunctioning in service. The Bureau of Medicine and Surgery has requested that compressed air for dental operating rooms and prosthetic laboratories be provided from the ship's service low-pressure air system.

2. A low-pressure compressed-air service connection to dental operating rooms and prosthetic laboratories is hereby authorized and air compressors as required by reference (a) will no longer be provided. This work will be authorized by shipalts for ships in commission.

3. This installation should be accomplished in accordance with the following instructions:

(a) Connect to the nearest extension of the ship's service air main through a stop valve in the branch, lead the branch to the dental laboratory to a receiver. The receiver should be approximately 1-1/2 cu.ft. capacity and should be a suitable for a working pressure of 100 p.s.i.

(b) Provide a globe valve at this point.

(c) Provide an air-loaded reducing valve to reduce from 100/50-5 p.s.i., with a capacity of about 10 cu. ft. of free air per minute and a relief valve on the low-pressure side set for 10 p.s.i.

(d) In the low-pressure line, install a filter similar or equal to the type A-1 filter manufactured by Skinner Purifier Incorporation of Detroit, Michigan.

(e) Beyond the filter, provide a line to the vicinity of each dental chair and as required to the prosthetic laboratory. These outlets should terminate in a pipe thread to take the hose and nozzle to be provided by the Government.

--BuShips. P. F. Lee.

* * * * * *

(Not Restricted)

Disestablishment of Naval Medical Activity. As published in the Navy Department Semimonthly Bulletin of 31 May 1946, the following Naval Medical activity was disestablished as of the date shown:

Name	Address	Date of disestablishment
U. S. Naval Hospital	Shoemaker, California	30 June 1946

* * * * * *

ALNAV 281 29 May 1946 (Not Restricted)

Subj: Shortage of Medical and Dental Officers.

1. A survey of the medical and dental requirements of the Army and Navy shows that a critical shortage of medical and dental officers will exist for some time to come. To alleviate this shortage and to establish comparable discharge criteria for the Army and Navy certain naval medical officers who are graduates of the V-12 training program and naval dental officers who were educated wholly or in part by the Government will no longer be released to inactive duty under present demobilization procedures.

2. This provision covers all United States Naval Reserve medical officers who are graduates of V-12 and who were or will be ordered to active commissioned duty on or after 1 March 1946 on completion of internship (either civilian or Navy). This provision also covers all United States Naval Reserve dental officers who were educated wholly or in part as members of either V-12 or the Army specialized training program and who have not completed 3 years of active duty — as dental officers.

3. It has been determined that present requirements make it necessary to retain such medical officers on active duty for a period of 2 years after completion of internship and such dental officers for a period of 3 years after reporting for active duty as dental officers. It is anticipated that the needs of the service in the future may permit a reduction of this period.

4. Alnav 395-45 as amended is modified to the extent that above-designated medical and dental officers are exempt from demobilization and it is directed that all such Reserve medical and dental officers who have not been detached under orders directing them to report to a separation center shall be retained at their present duty stations. Separation centers shall retain on board and report to BuPers all such officers who report to separation centers after 2400, 30 May 1946 pending specific instructions as to their disposition.

(Not Restricted)

5. All Reserve medical officers who upon completion of internship reported for active duty on or after 1 March 1946 shall submit to their commanding officer an affidavit certifying whether they are graduates of the Navy V-12. All Reserve dental officers shall submit to their commanding officer an affidavit certifying whether they received any part of their dental education under V-12 or Army specialized training programs. Commanding officers shall not request separation orders for officers ineligible under this Alnav nor detach any such officer. Commanding officers shall endorse separation orders of all medical and dental officers with a statement that the officer is eligible for separation under this Alnav.

6. Separation centers shall inspect orders of all medical and dental officers and shall insure compliance with the above.

-- SecNav. John L. Sullivan.

* * * * * *

ALNAV 318 14 June 1946 (Not Restricted)

Subj: Transfer to the Regular Navy.

In order to expedite orderly demobilization and because of budgetary restrictions during the fiscal year 1947 the following action concerning applications from reserve and temporary USN officers for transfer to the Regular Navy who are currently on active duty including terminal leave has become necessary.

1. Reserve and temporary USN officers on active duty, other than those on terminal leave, who apply on or after 10 July 1946 for transfer to the Regular Navy under the provisions of BuPers Circ Ltrs 288-45 and 303-45 will not remain on active duty solely by reason of having applied for transfer but will be demobilized in accordance with existing directives unless they are included within paragraph 6 Alnav 161-46 (as amended by Alnavs 210-46, 231-46, 299-46 and this Alnav). Officers who apply for transfer, other than those on terminal leave, prior to 10 July 1946 will remain on active duty while their applications are pending unless they desire and are eligible for separation under the provisions of NavAct 18-46.

2. Reserve and temporary USN officers who previously requested transfer and are on terminal leave on and after 10 July 1946 or who commence terminal leave or subsequent to 10 July 1946 and then request transfer to the Regular Navy will not have the option of requesting retention on active duty while their applications are pending.

(Not Restricted)

3. Since the officers referred to in paragraphs one and two above will be released to inactive duty at the expiration of their terminal leave because they will not have the option of remaining on active duty while their applications for transfer are pending (unless they have been offered and accept a permanent appointment in the Regular Navy in the meantime) they will not suffer the loss of precedence referred to in paragraph seven of BuPers Circ Ltr 288-45 of 15 Nov.

4. Nothing in this Alnav alters the loss of precedence assigned to an officer who applies or has previously applied for transfer (a) while on inactive duty or (b) whose terminal leave expires prior to 10 July 1946 during which period he did not request retention on active duty.

5. Change paragraph six (able) Alnav 161-46 to read "Male officers who apply prior to 10 July 1946 or have applied for transfer to Regular Navy, whose applications have not been disapproved and who have not requested release in accordance NavAct 18-46."

--SecNav. James Forrestal.

* * * * * *

ALNAV 320 15 June 1946 (Not Restricted)

Subj: Course in Aviation Medicine.

Applications are desired to reach BuMed prior to 1 August 1946 from Regular medical officers, reserve transferees rank lieutenant (junior grade), lieutenant, lieutenant commander for three months' course in Aviation Medicine at School of Aviation Medicine, Pensacola, Florida. Two years naval experience including internship required. Class convenes 15 September 1946 limited to quota twenty students. No service agreement required.

--SecNav. James Forrestal.

* * * * * *

Circular Letter 46-94 13 June 1946 (Not Restricted)

To: Comdt, 12th ND, NavHosps (Continental), SubBase, New London, Conn., NAS (Atlanta, Ga.; Bannana River, Fla.; Dallas, Tex.; Glenview (Chicago), Ill.; Grosse Ile, Mich.; Hutchinson, Kans.; (Lambert Field), St. Louis, Mo.; Miami, Fla.; Olathe, Kans.; Ottumwa, Iowa; Patuxent River, Md.; Quonset Point, R. I.; (Wold Chamberlain Field), Minneapolis, Minn.)
MarCorps Air Station, Cherry Point, N.C., NavOrd Plant, Pocatello, Idaho, NavSta, Portland, Maine, NavTraSchols, (DelMonte, Calif. and Navy Pier Chicago, Ill.), BuSandA (Field Branch), Cleveland, Ohio.

Subj: Naval and National Cemeteries, List of.

Ref: (a) BuMed Cir Ltr 42-122, 16 Dec 1942.

Encl: 1. (HW) List of cemeteries.*

1. Encl 1 lists Naval and National Cemeteries available for burial of the remains of those who die while on the active or retired lists of the Navy and Marine Corps, who have had honorable service therein. Ref (a) is hereby superceded.

2. Except at Arlington National Cemetery, the National Cemeteries have limited facilities for receiving and caring for the remains and the services are usually limited to the opening and closing of the grave. If remains are consigned to home of deceased or to a local undertaker, expenses of funeral and burial, as provided in Par. 3447.1, Manual of the Medical Department, are allowable. Naval honors may be provided only at those National Cemeteries in the immediate vicinity of a Naval activity. Relatives should be informed that the Navy is unable to provide Naval honors where the cemetery is not located near a Naval activity and that they must make all funeral arrangements with the Superintendent of the National Cemetery.

--BuMed. Ross T. McIntire.

CC: DMO's
ND's

* * * * * *

* Enclosure not reprinted in Bumed News Letter.

Circular Letter 46-95 17 June 1946 (Not Restricted)

To: All Ships and Stations.

Subj: Pension Claims and Medical Records of Persons Separated from the Naval Service.

Ref: (a) BuMed C/L 46-76, dated 9 May 1946 (N. D. Bull., 15 May, Item 46-1016.

1. In those cases where an individual who is being separated from the service submits a claim for a pension, the medical records forwarded to the Bureau shall be accompanied by a statement showing to which Veterans Administration Regional Office or Center the pension claim and records listed in paragraph 5 of reference (a) were forwarded.

2. The statement shall be the last entry on the last medical history sheet (Form H-8) in the health record, so that it will be next to the Form Y when the records are assembled for forwarding to the Bureau, and shall contain the following information:

Name and location of Separating Activity

Date

Pension claim and copy of medical record forwarded to:

(Enter here the name and address of the Veterans Administration Regional Office or Center to which the pension claim and medical record were forwarded.)

(Signature of Medical Officer)

--BuMed. Ross T. McIntire.

* * * * * *

Circular Letter 46-96 20 June 1946 (Not Restricted)

To: MedOfsCom, NavHosps (Continental).

Subj: Separation of Waves During Post-demobilization Period.

1. The Bureau of Medicine and Surgery has agreed to a program now being prepared by the Bureau of Naval Personnel which requires the separation of all

(Not Restricted)

Wave personnel through Naval hospitals after 1 Sept 1946.

2. The present plan is to retain approximately 5,000 enlisted and 500 officer Waves on active duty after 1 September 1946. Forty per cent of this number are intended for duty in Naval hospitals. It is apparent that Naval hospitals are the most logical place for separation for the following reasons:

a. Naval hospitals have a continuing staff of medical officers, civil readjustments officers, paymasters, etc., for separating hospitalized personnel and ship's company.

b. Naval hospitals usually have berthing and messing facilities for ship's company women which are not available at receiving stations.

c. A large percentage of Wave personnel on active duty after the end of the demobilization period will be members of ship's companies of naval hospitals.

d. Naval hospitals have facilities for the special medical examinations required for Wave personnel.

The Bureau of Naval Personnel has advised that the release of Wave personnel will be accomplished gradually so that hospital facilities will not become congested.

3. Additional information regarding this program will be released by the Bureau of Naval Personnel at a later date.

--BuMed. Ross T. McIntire.

* * * * * *

Circular Letter 46-97 24 June 1946 (Not Restricted)

To: NavHosps (Continental).

Subj: Special Treatment Centers.

Ref: (a) BuMed CirLtr 45-77, P16-3/P3-2, dated 20 March 1945.

1. Attention is invited to Paragraph 2, Sections A to J of reference (a). Early transfer of indicated cases is necessary at this time in order to utilize to the fullest extent the trained personnel scheduled for demobilization prior to 1 September 1946.

(Not Restricted)

2. In the absence of qualified personnel for the proper treatment of any type of case not mentioned in reference (a), transfer to another hospital will be considered within the district by the District Medical Officer and beyond the district by the Bureau of Medicine and Surgery, as heretofore.

--BuMed. Ross T. McIntire.

* * * * * *

Circular Letter 46-98 25 June 1946 (Not Restricted)

To: MedOfsCom, NavHosps (All Types).

Subj: Blindness Cases; Special Reporting of.

1. This Bureau is desirous of establishing a register of all patients who have developed total blindness in one or both eyes during the wartime period.

2. Because of obvious failure to report blindness which was acquired as an ACD condition of some other diagnosis, it is impossible to obtain complete information from the Fa cards.

3. It is, therefore, directed that all naval hospitals prepare a list of all cases in which blindness developed either as a result of injury or disease during the period 7 Dec 1941 to 30 June 1946. A supplemental letter report shall be made when additional cases are treated, after 30 June 1946.

4. This list shall contain the following pertinent information:

a. Name in full.
b. Rank or rate.
c. Date of birth.
d. Place of birth.
e. If blindness is due to a disease:
   State diagnosis of which the blindness was an ACD; date of original admission for such disease; date and manner of disposition of such disease.
f. If blindness is due to trauma:
   State diagnosis of which the blindness was an ACD; date of original admission: circumstances of injury; date and manner of disposition of tne diagnosis of which the blindness was an ACD.
g. When blindness is unilateral, state eye.

(Not Restricted)

h. When blindness is the result of "absence, acquired, eye, (state eye or eyes)" state whether blindness resulted from:
(1) A war wound (enemy action).
(2) An ACD of a war wound.
(3) An eye condition (disease).
(4) Some other disease.

i. Date and type prosthesis furnished - by whom manufactured.

5. At such hospitals in which special forms have been maintained concerning most of the above information, microfilm copies will suffice. If microfilm cannot be obtained locally, then BuMed should be so informed, in order that provisions may be made for such copies.

--BuMed. Ross T. McIntire.

* * * * * *

Circular Letter 46-99 25 June 1946 (Not Restricted)

To: All Naval Stations.

Subj: Otosclerosis Service, U. S. Naval Hospital, Philadelphia, Pennsylvania; Establishment of.

Ref: (a) BuMed:WR:MC, P4-4/P3-2 (DEAF), 20 March 1846.
(b) BuMed CirLtr 45-77 of 20 March 1945, Para 2c.

1. The U. S. Naval Hospital, Philadelphia, Pennsylvania, has been designated a center for the surgical treatment of otosclerosis by fenestration.

2. References (a) and (b) are hereby modified accordingly.

--BuMed. Ross T. McIntire.

* * * * * *